

## Attachment Report - IT Student

**Student Name:** ABDI MOHAMED KARU

**EMAIL:** abdishkaru10@gmail.com

### Key Responsibilities and Tasks

Throughout the attachment , I am involved in the following activities:

#### 1. Learning GitHub and Version Control:

- Created my GitHub account and set up repositories for different projects.
- Familiarized myself with basic Git commands such as `git init`, `git clone`, `git commit`, and `git push`.
- Learned how to manage branches, handle merge conflicts, and collaborate on projects via GitHub.

#### 2. Understanding Tech Stacks:

- Studied the organization's primary tech stack:
  - **React + JavaScript:** Gained an understanding of building user interfaces using React, utilizing JavaScript for dynamic content.
  - **Next.js:** Started learning Next.js and its advantages, like server-side rendering and static site generation.
  - **Python + Django:** Familiarized myself with the Django framework and its role in backend development, understanding its MVC architecture.
  - **Tailwind CSS:** Learned the utility-first CSS framework to design responsive web layouts with ease.

#### 3. Developing a Website Using Next.js:

- Applied knowledge of Next.js by working on a small project aimed at building a functional website.
- Incorporated React components and routed pages using Next.js features like `getStaticProps` and `getServerSideProps`.
- Ensured the website was responsive using Tailwind CSS to create modern and mobile-friendly designs.

#### 4. Familiarization with Development Tools:

- Downloaded and set up Visual Studio Code (VS Code) as the primary code editor for development.
  - Learned how to use extensions in VS Code to enhance productivity, such as Prettier, ESLint, and GitLens.
  - Ensured proper project folder structures and utilized integrated terminal functions for smoother development workflows.
-

## Skills Gained

### 1. Technical Skills:

- Gained a solid understanding of **version control** using Git and GitHub, which will help in collaborating on projects and managing codebases effectively.
- Built a foundation in **React** and **Next.js**, which are essential for modern web development.
- Developed proficiency in using **Tailwind CSS** for designing responsive web pages.
- Gained hands-on experience with **Python** and **Django** in backend development.

### 2. Soft Skills:

- **Problem-solving:** Tackling issues during development and debugging the code.
  - **Time management:** Juggling multiple tasks, including learning new tech stacks and building a project.
  - **Collaboration:** Working with version control and understanding collaborative workflows using GitHub.
- 

## Challenges Encountered

Throughout the attachment, I encountered several challenges, which helped me improve my problem-solving abilities:

- **Understanding Next.js features:** At first, concepts like server-side rendering (SSR) and static site generation (SSG) were tricky, but after hands-on practice, I gained clarity.
  - **Integrating Tailwind CSS effectively:** I had to learn the utility-first approach of Tailwind, which initially felt different from traditional CSS practices, but it became more intuitive with practice.
  - **Debugging in Visual Studio Code:** Learning how to efficiently use debugging tools in VS Code was challenging, but it became easier as I familiarized myself with the environment.
- 

## Conclusion

My attachment period has been an invaluable experience, where I was able to apply theoretical knowledge to real-world tasks. The exposure to various technologies such as GitHub, React, Next.js, Tailwind CSS, and Django has enhanced my understanding of full-stack web development. I am confident that the skills I have acquired will be essential for my future endeavors in the IT industry.

---

## Future Steps

Moving forward, I plan to continue enhancing my skills in the tech stack I've learned, particularly in Next.js and React, and work on building more complex projects. I also aim to deepen my knowledge of backend technologies like Python and Django to become a well-rounded developer.

---